AMENDMENTS TO THE CLAIMS

Please amend applicants' claims, without prejudice, to read as follows:

1 (Currently Amended). A method of producing color compensation transforms comprising the steps of:

using a calibrated scanner to scan at least a first color reference patch and a second color reference patch ~~a plurality of color reference patches~~ to produce a corresponding first and second ~~plurality of~~ scanned color space values, respectively, wherein the first and second color reference patches ~~of said plurality thereof~~ exhibit respective first and second material compositions that are sufficiently different, one from the other, as to ~~ordinarily~~ prevent a ~~typical~~ scanner, calibrated to the first material composition, ~~a one of such material compositions,~~ from producing scanned color space values of as high a degree of accuracy with respect to scannable objects exhibiting at least the second material composition; ~~any other of such material compositions than said one of such material compositions;~~ and

combining said first and second ~~plurality of~~ scanned color space values with at least the first and second ~~a plurality of~~ measured color space values to create a compensation table, the first and second measured color space values ~~of said plurality thereof~~ being a result of the first and second color reference patches ~~of the plurality thereof~~ having been measured with an optical measuring device;

wherein said compensation table is selectively useable as part of said compensation transforms to enable a ~~an otherwise typical~~ scanner to produce scanned color space values of substantially as high a degree of accuracy with respect to a scannable object exhibiting said first material composition ~~any one of such material compositions~~ as with respect to a scannable object exhibiting said second material composition. ~~any other one of such material compositions.~~

2 (Previously Presented). A method according to claim 1, wherein said compensation transforms for CMYK inks are processed for different levels of K using the formula

$y = af_0(x) + (1-a)f_1(x)$, wherein y is the compensated output, x is the uncompensated output, $f_0(x)$ is a transform for a first K cube, $f_1(x)$ is a transform for a second K cube, and *a* is a scaling factor.

3 (Original). A method according to claim 1, further comprising the step of interpolating between different levels of K.

4 (Currently Amended). A method according to claim 1, wherein said first and second color reference patches represent different combinations of inks.

5 (Original). A method according to claim 1, further comprising the step of transforming a color value of a color patch based on the original ink values of said color patch.

6 (Original). A method according to claim 1, wherein said optical measuring device is a spectrophotometer.

7 (Original). A method according to claim 1, wherein said compensation transforms are a set of look up tables that map scanned uncompensated CIEL*a*b values to compensated CIEL*a*b values.

8 (Original). A method according to claim 1, wherein said compensation transforms are a set of look up tables that map scanned uncompensated CIEL*a*b values to compensated CIEL*a*b values for different combinations of ink values.

9 (Currently Amended). A method according to claim 1, further comprising the steps of mapping scanned CIEL*a*b values to optically measured CIEL*a*b values by using a CIEL*a*b to CMY transform with respect to said first and second scanned color space values ~~of said plurality thereof~~ and a CMY to CIEL*a*b transform with respect to said first and second measured color space values ~~of said plurality thereof~~.

10. (Original). A method according to claim 1, wherein said compensation transforms are a set of look up tables constructed out of gamut CIEL*a*b values using the least squares algorithm with CIEL*a*b values in the tables that are in gamut.

11. (Currently Amended). A method according to claim 1, further comprising generating the first and second color reference patches ~~of said plurality thereof~~.

12. (Currently Amended). A method according to claim 1, further comprising using an optical measuring device to measure the first and second color reference patches ~~of said plurality thereof~~ to produce the first and second measured color space values ~~of said plurality thereof~~.

13 (Currently Amended). A method according to claim 1, wherein the first and second color reference patches ~~of said plurality thereof~~ exhibit respective first and second material compositions sufficiently different, one from the other, with respect to at least one selected from a group comprising respective inks, respective combinations of inks, respective paper, respective combinations of ink and paper, and combinations thereof, as to ~~ordinarily~~ prevent a ~~typical~~ scanner, calibrated to a one of such first and second material compositions, from producing scanned color space values of as high a degree of accuracy with respect to scannable objects exhibiting any other of such material compositions than said first and second ~~one of such~~ material compositions.

14 (Currently Amended). A method according to claim 1, wherein the first and second color reference patches ~~of said plurality thereof~~ include at least two color reference patches exhibiting substantially the same color, and yet exhibit respective material compositions sufficiently different, one from the other, with respect to at least one selected from a group comprising respective inks, respective combinations of inks, and combinations thereof, as to ~~ordinarily~~ prevent a ~~typical~~ scanner, calibrated to a one of such first and second material compositions ~~of said at least two color reference patches,~~ from producing scanned color space values of as high a degree of accuracy with respect to scannable objects exhibiting the other of such first and second material compositions of said ~~at least~~ two color reference patches than with respect to scannable objects exhibiting said one of such first and second material compositions of said ~~at least~~ two color reference patches.

15 (Canceled).

16 (Canceled).

17 (Canceled).

18 (Previously Presented). A method of producing compensation transforms comprising the steps of:

generating a plurality of color reference patches;

scanning said patches to produce color space values, wherein the scanning is performed with a calibrated scanner;

measuring said patches with an optical measuring device to produce measured color space values; and

creating a compensation table from said scanned color space values and said measured color space values;

wherein said compensation transforms for CMYK inks are processed for different levels of K using the formula $y = af_0(x) + (1-a)f_1(x)$, wherein y is the compensated output, x is the uncompensated output, $f_0(x)$ is a transform for a first K cube, $f_1(x)$ is a transform for a second K cube, and *a* is a scaling factor.